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Editorial

INCOMING WATER CRISIS IN INDIA : AS UNDERSTOOD BY OTHERS

The incoming water crisis of our country is not a serious or hot topic of discussion in any section of our society. But like many other important aspects, a good number of conscious people residing outside India are trying to find out the actual reasons, possible outcome and ways to combat the situation. Some of their findings are very interesting and can lead our policy makers to accept some appropriate decisions. We can share some of such explanations.

As per one report of UNICEF on use of Indian water, a constant competition will be started very soon over water between the families engaged in agricultural practices and the urban habitats, the industrialists and the environmental conservationists, minorities depended on natural resources and entrepreneurs seeking to commodity the resources base for commercial gain.

According to a report of the National Bureau of Asian Research, Wasington, USA, India's water crisis is mainly rooted in three causes. The first is the very rapid population growth, which leads to availability of insufficient water per person. As per the 2011 census, India is having a population load of 1.2 billion, who are having only 1,000 cubic meters of water per person. India had between 3,000 and 4,000 cubic meters of water per person in 1951. A country is considered water-stressed if it has less than 1,700 cubic meters per person per year. On the other hand, United States has nearly 8,000 cubic meters per person today. So condition is easily understandable.

According to the same report, "the second cause is poor water quality resulting from insufficient and delayed investment in urban water-treatment facilities. Water in most rivers in India is largely not fit for drinking, and in many stretches not even fit for bathing. Despite the Ganga Action Plan, which was launched in 1984 to clean up the Ganges River in 25 years, much of the river remains polluted with a high coli form count at many places. The facilities created are also not properly maintained. Moreover, industrial effluent standards are not enforced because the state pollution control boards have inadequate technical and human resources."

The third main cause of water crisis of India was analyzed as "dwindling groundwater supplies due to over-extraction by farmers. This is because groundwater is an open-access resource and anyone can pump water from under his or her own land. Given how highly fragmented land ownership is in India, with millions of farmers and an average farm size of less than two hectares, the tragedy of the commons is inevitable. India extracted 251 bcm (billion cubic meters) of groundwater in 2010, whereas the United States extracted only 112 bcm. Further, India's rate of extraction has been steadily growing from a base of 90 bcm in 1980, while this rate in the United States has remained at more or less the same level since 1980".

Irrational and indiscriminate use of water resources in India is described in an article of New York Times as "since independence, India's primary goals have been economic growth and food security, completely disregarding water conservation. This has caused serious ramifications being felt today, as many citizens

still operate under these principles. Unlike many other developing countries, especially those with acute water scarcity issues such as China, Indian law has virtually no legislation on groundwater. Anyone can extract water: homeowner, farmer or industry as long as the water lies underneath their plot of land".

As per one World Bank Report, "Due to the amenities of typical urban life, such as flush toilets and washing machines, people living in cities tend to lead more water intensive lives. The urban population has doubled over the past 30 years, now representing 30% of India's total population". It is postulated in the report that the urban population in India is expected to reach 50% of the total population by 2025. Population growth is going to accelerate the water crisis in India, especially as more and more people move into the cities and become part of the middle class. Because the rivers are too polluted to drink and the government is unable to consistently deliver freshwater to the cities, many urban dwellers are turning to groundwater, which is greatly contributing to the depletion of underground aquifers.

According to the United Nations World Water Development Report (2015), coastal cities such as Calcutta, Dhaka, Jakarta and Shanghai are already experiencing saltwater intrusion in groundwater supplies due to uncontrolled groundwater abstraction as a result of the inadequacy of public water supply systems. This problem has some definite trend to increase with time.

According to another report of New York Times, "India's water crisis is predominantly a manmade problem. India's climate is not particularly dry, nor is it lacking in rivers and groundwater. Extremely poor management, unclear laws, government corruption, and industrial and human waste have caused this water supply crunch and rendered what water is available practically useless due to the huge quantity of pollution".

So, a combination of improper disposal of sewage and industrial effluents, gathering of a part of pesticides and fertilizers used in farming practices make Indian surface water unfit for use in many cases. Accumulation of chemicals like arsenic, fluoride as well as detergent in the underground water due to lifting of water at a very fast rate making it unfit for consumption. Moreover, the storage depletion rate of underground water is so high that can lead to fight between different groups.

What are the alternatives....?

According to Brooks (2007), "the tragedy of India's water scarcity is that the crisis could have been largely avoided with better water management practices. There has been a distinct lack of attention to water legislation, water conservation, efficiency in water use, water recycling, and infrastructure. Historically water has been viewed as an unlimited resource that did not need to be managed as a scarce commodity or provided as a basic human right. These attitudes are changing in India; there is a growing desire for decentralized management developing, which would allow local municipalities to control water as best needed for their particular region."

"An immediate solution to India's water crisis is to change water management practices by regulating usage with effective legislation. However, as previously mentioned, there is significant opposition to raising electricity tariffs, and there would most likely be even more resistance to enacting tariffs on water itself."

"India is also considering large-scale engineering projects, similar to those adopted in China. The most talked about project is the $112 billion Interlinking of Rivers project. This project will link all 37 rivers by thousands of miles of canals and dozens of large dams. This project is intended to increase the amount of water available for irrigation and would add 34,000 mw of hydropower to the national pool. Civil society organizations and traditional water managers have dismissed the ILR because it has the potential for stirring international conflicts, by reducing the water that flows to bordering countries, such as Bangladesh. In

addition, ILR is expensive, will most likely face the same fate as India's dams: broken and inefficient due to lack of maintenance and reinvestment."

We may start thinking.

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